

Work Order ID 70299

Thursday, June 02, 2011 1:51:21 PM

Page 1

Item ID: D3183-043

Accept

Revision ID:

Item Name: Bracket Assembly

Start Date: 6/8/2011 Start Qty: 4.00

Required Date: 6/24/2011 Req'd Qty: 4.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3183

Rev C1

100

0.00



BAND SAW

0.00

Bandsaw

Memo

Jeaspa Bandsaw

Cut blanks: (1.500" x 2.250") 5.500" long

110

0.00



HAAS CNC VERTICAL MACHINING #1

0.00

HAAS 1

Memo

HAAS CNC vertical machine #1

1-Machine D3183-3 as per Folio FA322 and Dwg D31831 Identify as D3183-3112-Debur113-Scribe batch number

120

0.00



QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Memo

Quality Control



Cust Item ID:

Customer:



af/IFK 11/08/17

af/BA 11/09/02

af 11/09/06

Pro →

4

5

5

W/O: 70293		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3183-043 PAR #: _____ Fault Category: Machining NCR: Yes No DQA: CK Date: 11/09/12
115838 Resolution: use as is Disposition: Acceptable QA: N/C Closed: CK Date: 11/09/12

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11.09.07	110	PART TOO NARROW - 0.218 IS 0.205 in two locations. R.L. END mill Brake causing part to lift in jig. Probes	<u>CP</u> 11.09.07 <u>QSI 042</u>	PART CRITICAL IN BENDING. INERTIA REDUCED BY 5% FROM NOMINAL. PARTS TESTED TO 725% OVER REQ'D LOADING SPEC TP-0412-694-2 <u>Acceptable.</u>	<u>owl</u> 11/09/07	<u>S</u> 11/09/07	<u>CP</u> 11.09.07 <u>QSI 042</u>	<u>S</u> 11/09/07
		Equipment failure function						

NOTE: Date & initial all entries

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Start Date: 6/8/2011 Start Qty: 4.00

Required Date: 6/24/2011 Req'd Qty: 4.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

JL 11-06-07

(4)



QC

Memo

0.00

Quality Control

140

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

Assemble D3183-043 as per Dwg D3183.

8/11/09/09 (5)

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/11/09/09

(75)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Item ID: D3183-043

Accept

Revision ID:

Item Name: Bracket Assembly

Start Date: 6/8/2011 Start Qty: 4.00

Required Date: 6/24/2011 Req'd Qty: 4.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Identify as per dwg & Stock Location: 234

0.00



Packaging

Memo

0.00

Packaging

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/9/12

11/9/12
mf
11-09-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, June 02, 2011 1:51:19 PM

Page 1

Work Order ID: 70299

Parent Item: D3183-043

Parent Item Name: Bracket Assembly



Start Date: 6/8/2011

Required Date: 6/24/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:Pick:AI 04.02.18 New issue KJ/DS
IPP Rev:B Changed Mat Size 08-06-26 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D3121-21		Manufactured	No			140	Each	35.0000	2	8			
Bolt													

Location	Loc Qty	Loc Code
ST235	35	
66969	3	
68955	32	

EP 11/09/09
B70771
(10x)

D3183-045		Manufactured	No			100	Each	25.0000	2	8			
Bearing Assembly													

Location	Loc Qty	Loc Code
ST236	25	
68256	18	
68629	7	

EP 11/09/09
B73620 (5x)
B71864
(52)

M174B1.500X02.250		Purchased	No			140	f	30.9603	0.4583	1.929684			
17-4 SS Bar 1.50 X2.250													

Location	Loc Qty	Loc Code
MAT031	30.9603	
108309	1.08	
113568	11.8333	
115806	18.047	

1.9297 K/K 11/08/17
anf

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	70299
Description: Bracket		Part Number:	D3183-3
Inspection Dwg: D3183	Rev: C1	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R0.188	✓		R-6	R-6 (ref)
R0.063	+/-0.010	R0.063	✓			
0.182	+/-0.010	.188	✓		Vern ML-D6	
0.070	+/-0.010	.070	✓		"	
0.100	+/-0.010	.098	✓		"	
Ø0.201 x 0.100	+/-0.010	Ø.200 x .099	✓		"	
0.182	+/-0.010	.188	✓		"	
5.32	+/-0.030	5.325	✓		"	
5.036	+/-0.010	5.040	✓		"	
2.120	+/-0.010	2.120	✓		"	
1.290	+/-0.010	1.288	✓		"	
0.365	+/-0.010	.365	✓		"	
0.218	+/-0.010	.213	✓		"	
1.030	+/-0.010	1.025	✓		"	
1.90	+/-0.030	1.890	✓		"	
1.012	+/-0.010	1.012	✓		"	
Ø0.201 x 0.100	+/-0.010	Ø.201 x .100	✓		"	
0.786	+/-0.010	.778	✓		"	
Ø0.392	+0.002/-0.000	Ø.3934	✓		Milt ML-07	
R0.19	+/-0.030	R.190	✓		R-6	
3.954	+/-0.010	3.954	✓		Vern ML-D6	
0.162	+/-0.010	.164	✓		"	
R0.19	+/-0.030	R.190	✓		R-6	
R0.25	+/-0.030	R.250	✓		"	
4.26	+/-0.030	4.260	✓		Vern ML-D6	
2.080	+/-0.030	2.100	✓		"	
1.155	+/-0.010	1.155	✓		"	
0.162	+/-0.010	.161	✓		"	
0.36	+/-0.030	.360	✓		"	
0.615	+/-0.010	.622	✓		"	
0.435	+/-0.010	.431	✓		"	
0.200	+/-0.010	.200	✓		"	
0.381	+/-0.010	.385	✓		"	
0.032	+/-0.010	.032	✓		"	

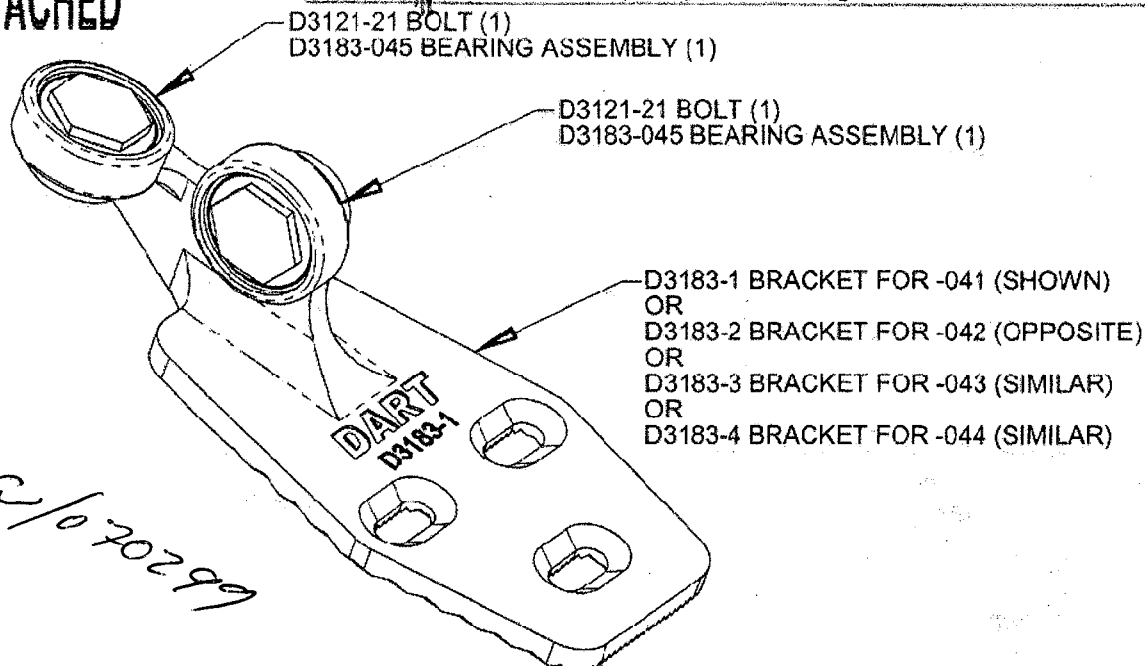
Measured by:	<i>ML</i>	Audited by:	<i>SL</i>	Prototype Approval:	N/A
Date:	11/09/06	Date:	11-09-07	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-043	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	06.03.09	Dwg Rev update	KJ/JLM	
D	08.01.28	0.182 dimension removed	KJEC/DD	<i>[Signature]</i>

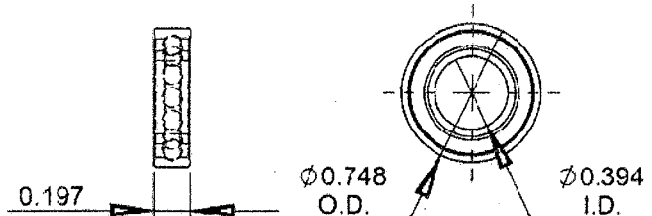


DESIGN #	DRAWN BY UP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A.	03.01.24	NEW ISSUE	
B.	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C.	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
C.I.	# 04.11.09	0.830 WAS 0.850	

RELEASED
04.03.01 off
DEO ATTACHED

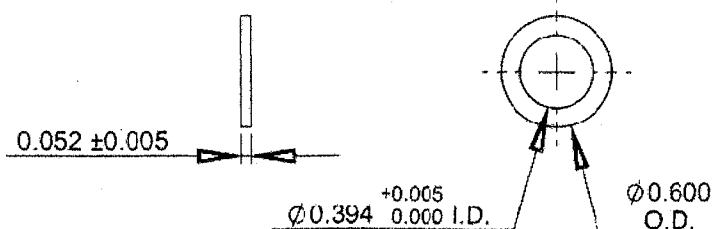


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

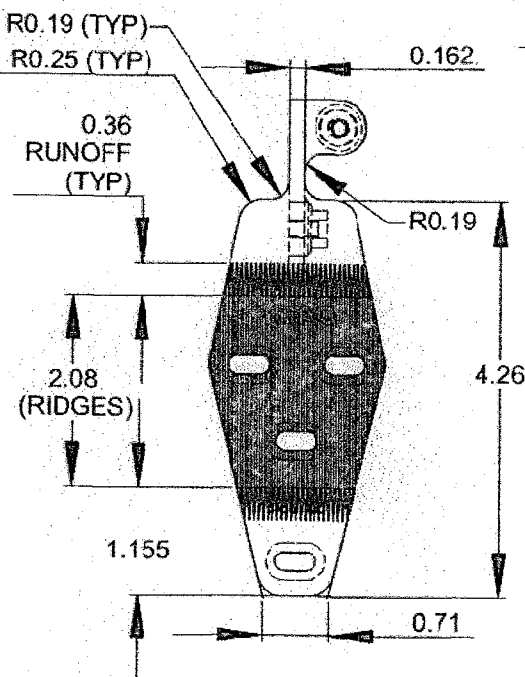
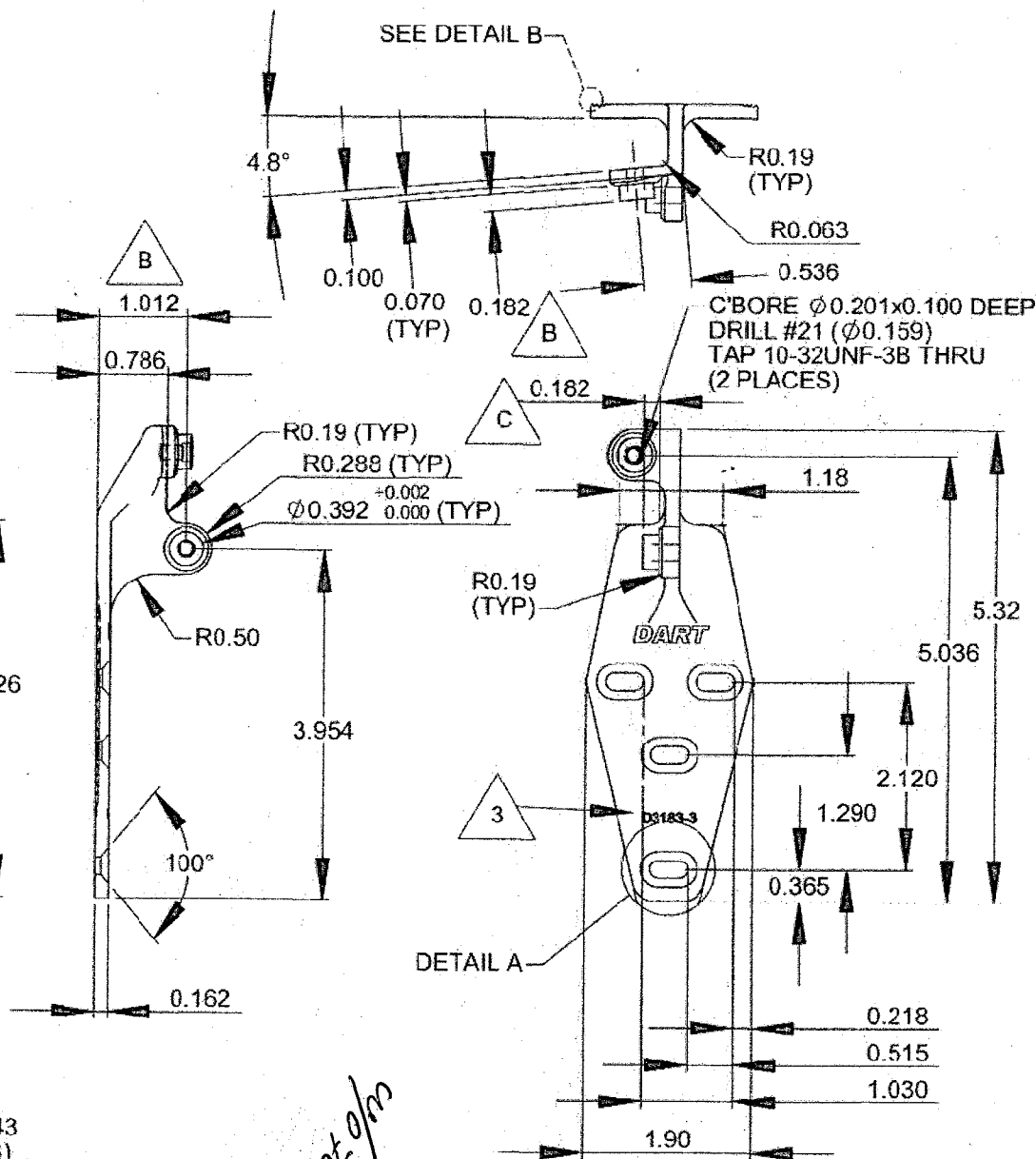
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DART



DESIGN	DRAWN BY	DART Aerospace Ltd
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	DRAWING NO.	REV. C
04.02.17	D3183	SHEET 3 OF 4
	TITLE	SCALE
	BRACKET ASSEMBLY	1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

b320t o/m

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DEO ATTACHED
RELEASED

DRAWING NO. D3183	TITLE BRACKET ASSEMBLY	REV C1	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3183-C1-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>q</i>	CHECKED <i>J</i>	MFG. APPR. <i>M</i>	APPROVED <i>MP</i>		DE APPR. <i>MP</i>		
DATE 10.05.14	DATE 10.06.30	DATE 10.06.30	DATE 10/06/30		DATE 10/06/30		

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT: Cr = 1720 N (386 lb) MIN [DYNAMIC]
Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012

4/070299

RELEASED
2010-07-22
MP